



ACC-i2 with TCT

IS MINIMAL LUMINAL AREA BY INTRAVASCULAR ULTRASOUND THE CRITICAL DETERMINANT OF FUTURE MACE IN INTERMEDIATE LESIONS? INSIGHTS FROM PROSPECT

i2 Poster Contributions

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Background: Mean luminal area (MLA) $\leq 4.0\text{mm}^2$ by intravascular ultrasound (IVUS) in angiographically intermediate lesions is often used as a criterion for performing PCI.

Methods: 697 patients with ACS underwent 3-vessel quantitative coronary angiography, gray-scale and radiofrequency IVUS immediately following successful PCI of their culprit lesion(s) (CL). IVUS MLA, plaque burden (PB) and presence of thin-cap fibroatheroma (TCFA) were evaluated. Major adverse cardiovascular events (MACE; cardiac death, arrest, myocardial infarction (MI), or rehospitalization for unstable or progressive angina) were adjudicated at a median follow-up of 3.4 years to originally treated CLs or untreated non-CLs (NCLs).

Results: The mean age in PROSPECT was 58.1 years, 24% were women and 17.1% had diabetes. There were 541 and 2,339 NCL with MLA $\leq 4.0\text{mm}^2$ and $>4.0\text{mm}^2$, respectively. MACE arose significantly more frequently from NCLs with baseline MLA $\leq 4.0\text{mm}^2$ than $>4.0\text{mm}^2$ (5.3% vs. 1.1%, unadjusted HR 5.00, 95% CI 2.94-8.51, $p<0.001$). MACE arising from NCLs with MLA $\leq 4.0\text{mm}^2$ was infrequent unless the NCL was also a TCFA or had PB $>70\%$ (Figure). MACE arising from NCL with MLA $\leq 4.0\text{mm}^2$ consisted of rehospitalization for progressive or unstable angina, with no cases of cardiac death, arrest or MI.

Conclusion: In patients with ACS, long-term MACE attributable to NCLs is more dependent on the degree of PB and plaque composition (TCFA) rather than MLA. Future trials of deferral vs. treatment on the basis of these criteria are warranted.

